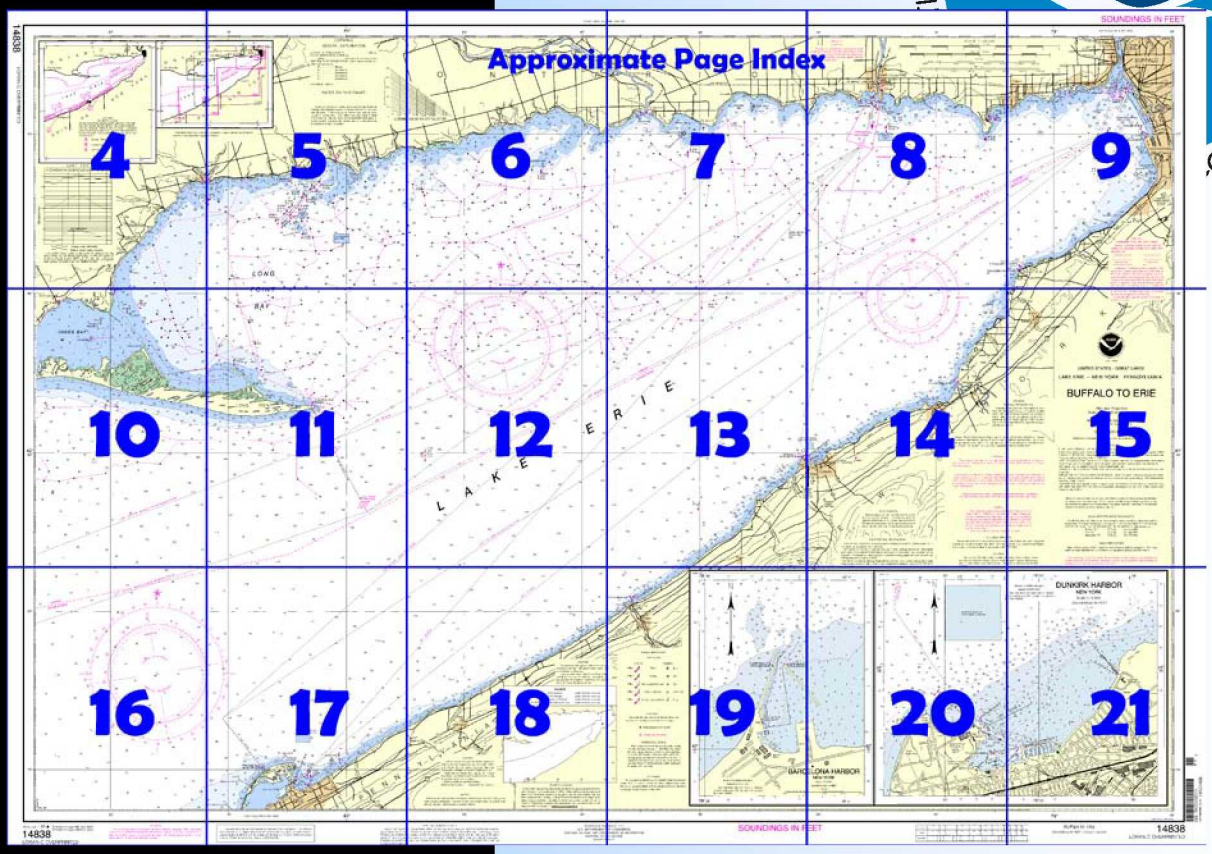
BookletChart™

Buffalo to Erie

(NOAA Chart 14838)

A reduced scale NOAA nautical chart for small boaters. When possible, use the full size NOAA chart for navigation.

- ☑ *Complete, reduced scale nautical chart*
- ☑ *Print at home for free*
- ☑ *Convenient size*
- ☑ *Up to date with all Notices to Mariners*
- ☑ *United States Coast Pilot excerpts*
- ☑ *Compiled by NOAA, the nation's chartmaker.*



Home Edition (not for sale)

Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
301-713-2770

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

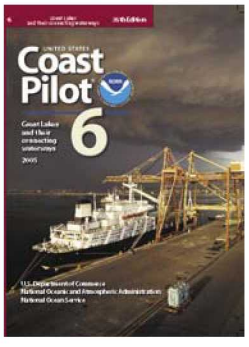
This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at http://www.NauticalCharts.NOAA.gov.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.



[Coast Pilot 6, Chapter 6 excerpts]

(1) Depths and vertical clearances under overhead cables and bridges given in this chapter are referred to Low Water Datum, which for Lake Erie is an elevation 569.2 feet (173.5 meters) above mean water level at Rimouski, Quebec, on International Great Lakes Datum 1985 (IGLD 1985).

(8) **Lake Erie** is the southeasternmost and fourth largest of the five Great Lakes. With a greatest depth of 210 feet, it is the shallowest of the lakes and the only one with a floor above sea level. The deepest part of the lake is generally at the E end, while the island region in the W part of the lake is the most shallow. The lake has an average depth of 62 feet. The lake is fed at the NW end by water from Lake Huron via St. Clair River, Lake St. Clair, and Detroit River. The only natural outlet of the lake is at the NE end through Niagara River. Welland Canal bypasses the falls and rapids of Niagara River and provides a navigable connection to Lake Ontario.

(16) In addition to the normal seasonal fluctuations, oscillations of irregular amount and duration are also produced by storms. Winds and barometric pressure changes that accompany squalls can produce fluctuations that last from a few minutes to a few hours. At other times, strong winds of sustained speed and direction can produce fluctuations that last a few hours or a day. These winds drive forward a greater volume of surface water than can be carried off by the lower return currents, thus raising the water level on the lee shore and lowering it on the windward shore. This type of fluctuation has a very pronounced effect on Lake Erie, because it is the shallowest of the Great Lakes and affords the least opportunity for the impelled upper water to return through lower return currents beneath the depth disturbed by storms. As a result, the water level in the harbors, particularly those at the ends of the lake, fluctuates markedly under the influence of the winds; the amount of fluctuation depends on the direction, strength, and duration of the wind. Fluctuations as great as 10 feet and lasting as long as 12 hours have been observed. September through April is the most likely period, particularly November, December, and January. At the E end of the lake, W winds pile up water in Buffalo Harbor and increase the depth in Niagara River, while E winds drive the water out of Buffalo Harbor and decrease the flow and depths in Niagara River. Along the S shore, fluctuations caused by winds are generally less than 1 foot above or below normal; extreme fluctuations of about 2 feet above or below normal may occur.

(18) Strong winds are mostly likely in autumn during the navigation season; November and December are the worst as gales blow 6 to 9 percent of the time. However, Lake Erie's maximum wind occurred in July, NNW at 87 knots. Reported by two vessels, these winds were triggered by an Independence Day (1969) squall line. Gales, however, are encountered less than 1 percent of the time from May through September. Summer winds blow mainly out of the S through W, particularly SW. These directions are also favored during other seasons along with northwesterlies and northeasterlies.

(19) The shallowness and orientation of Lake Erie make it susceptible to SW and NE winds, which can quickly raise dangerous seas and, if persistent, create a dangerous surge problem at both ends of the lake. Rough seas are most frequent in autumn and in the E half of the lake. Waves of 10 feet (3 m) or more can be expected up to 3 percent of the time in the E, while seas of 5 feet (1.5 m) or more are encountered 30 percent of the time lakewide; extremes of 15 to 20 feet (4.5 to 6 m) have been encountered.

(69) A **speed limit** of 6 mph (5.2 knots) is enforced in Black Rock Canal.

(70) The canal has no docks or facilities for mooring large vessels. The Buffalo Yacht Club maintains a small-craft basin on the canal adjacent to the Buffalo waterworks pumping station. Downstream from the yacht club basin, a berthing area about 12 feet deep has been dredged for the U.S. Naval and Marine Corps Reserve Training Center. Several small-craft facilities are on **Scajaquada Creek,** which enters the canal about 0.5 mile SE of the lock. Transient berths, gasoline, water, electricity, marine supplies, a launching ramp, a 4-ton mobile crane, and hull and gasoline engine repairs are available. In 1977, 4 feet was reported available in the approach and alongside the berths.

Lower Black Rock Harbor is the name applied to the part of Buffalo which fronts on the Niagara River below Black Rock Lock. The harbor is about 0.75 mile long with the upper part between the lock and the mainland. Loaded vessels should use the Black Rock Canal to approach the harbor. Approaching from the open river, the current passing the guide pier below the Black Rock Lock creates a powerful eddy with water flowing upstream along the U.S. side for more than 0.5 mile below the lock. Caution is advised when entering the harbor or docking. The harbor has several marinas. Transient berths, gasoline, diesel fuel, water, ice, electricity, marine supplies, a launching ramp, mobile lifts to 30 tons, and hull, engine, and electronic repairs are available. In 1977, depths of 7 to 12 feet were reported alongside the berths.

Table of Selected Chart Notes

Ⓟ Pump-out facilities

✦ Submerged well head

Corrected through NM Apr. 02/05
Corrected through LNM Mar. 22/05

PLANE COORDINATE GRID
(based on NAD 1927)
New York State Grid west zone, is indicated by dashed ticks at 2,000 intervals. The last three digits are omitted.

PLANE COORDINATE GRID
(based on NAD 1927)
New York State Grid west zone, is indicated by dashed ticks at 2,000 intervals. The last three digits are omitted.

HORIZONTAL DATUM
The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.214" northward and 0.844" eastward to agree with this chart.

RACING BUOYS
Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other private buoys are not all listed in the U.S. Coast Guard Light List.

CAUTION
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.
During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

CAUTION
POTABLE WATER INTAKE
Vessels operating in fresh water lakes or rivers shall not discharge sewage, or ballast, or bilge water within such areas adjacent to domestic water intakes as are designated by the Commissioner of Food and Drugs (21 CFR 1250.93). Consult U.S. Coast Pilot 6 for important supplemental information.

CAUTION
Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.
Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.
Station positions are shown thus:
⊙(Accurate location) o(Approximate location)

CAUTION
Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

CAUTION
SUBMARINE PIPELINES AND CABLES
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:

Pipeline Area *Cable Area*

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.
Covered wells may be marked by lighted or unlighted buoys.

NOTE C
CAUTION
Cables for an Ice Boom are permanently attached to anchors on the lake bottom. They are submerged and not buried. Floating steel pontoons are attached to these cables between December 15 and April 1.

NOTE A
Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio or at the Office of the District Engineer, Corps of Engineers in Buffalo, New York.
Refer to charted regulation section numbers.

LORAN-C
GENERAL EXPLANATION

LORAN-C FREQUENCY.....100kHz
PULSE REPETITION INTERVAL
9960.....99,600 Microseconds
STATION TYPE DESIGNATORS: (Not individual station letter designators).
M ..... Master
W ..... Secondary
X ..... Secondary
Y ..... Secondary
Z ..... Secondary

EXAMPLE: 9960-Y

RATES ON THIS CHART

Loran-C correction tables published by the National Imagery and Mapping Agency or others should not be used with this chart. The lines of position shown have been adjusted based on survey data. Every effort has been made to meet the ¼ nautical mile accuracy criteria established by the U.S. Coast Guard. Mariners are cautioned not to rely solely on the lattices in inshore waters.

Extreme Levels (period of record)
Low Water Datum, which is the plane of reference for the levels shown on the above hydrograph, is also the plane of reference for the charted depths. If the lake level is above or below Low Water Datum, the existing depths are correspondingly greater or lesser than the charted depths.

Additional information can be obtained at nauticalcharts.noaa.gov.

CAUTION
Due to periodic high water conditions in the Great Lakes, some features charted as visible at Low Water Datum may be submerged, particularly in the near shore areas. Mariners should proceed with caution.

SOURCE DIAGRAM
Most of the hydrography identified by the letter "j" was surveyed by the U.S. Army Corps of Engineers prior to 1974. Other outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels currently maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

NOTE D
Mariners are warned that numerous uncharted stakes and fishing structures, some submerged, may exist in the area of this chart. Such structures are not charted unless known to be permanent.

Gas pipelines and wells contain natural gas under pressure and damage to these installations would create an immediate fire hazard. Vessels anchoring in Lake Erie should do so with caution after noting the underwater, and therefore concealed, positions of all oil and gas wells, pipelines, submerged cables and other installations.

Sailing courses and limits indicated in magenta are recommended by the Lake Carriers Association and the Canadian Shipowners Association.

POLLUTION REPORTS
Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

WARNING
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

RADAR REFLECTORS
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

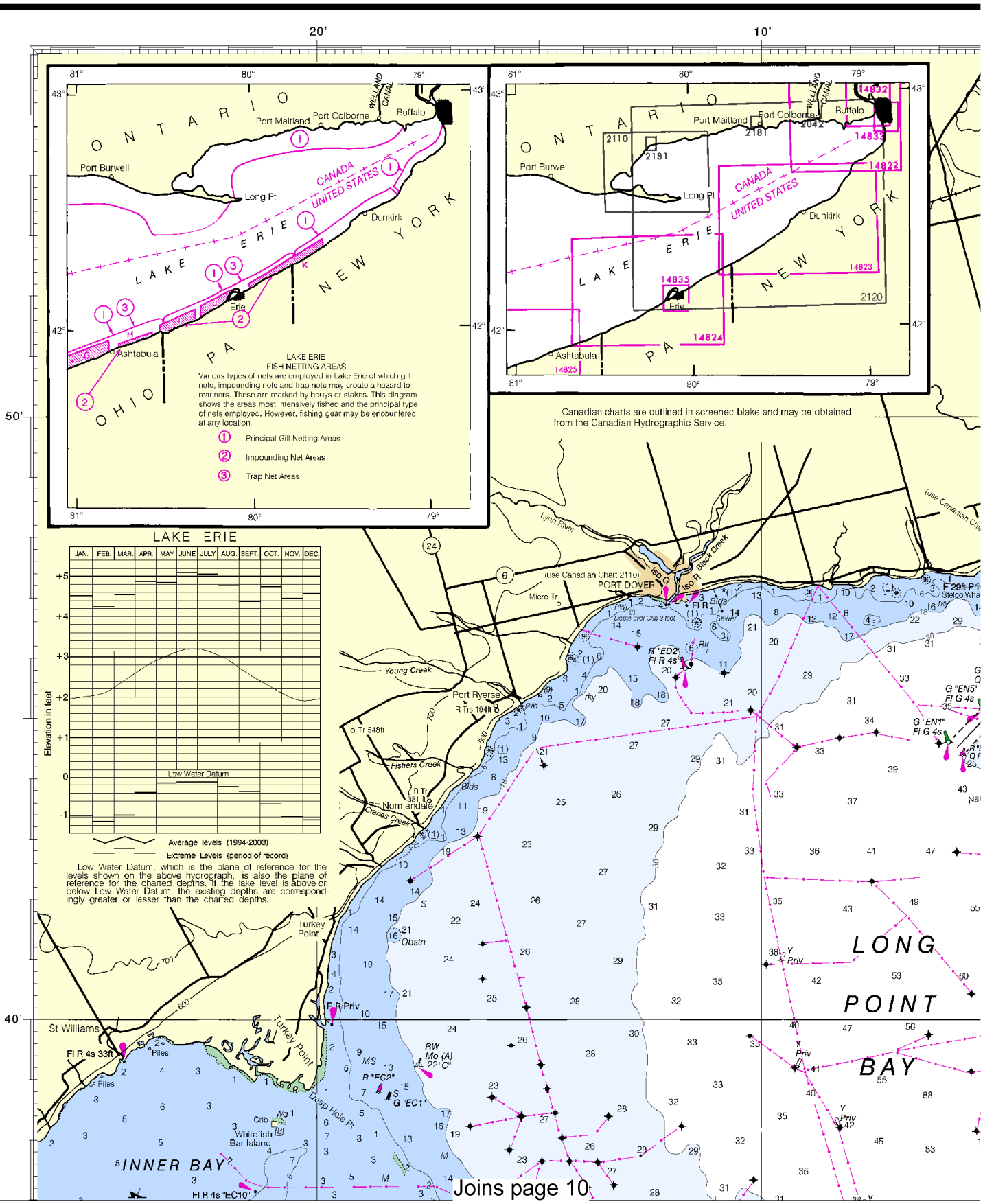
CAUTION
This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner.

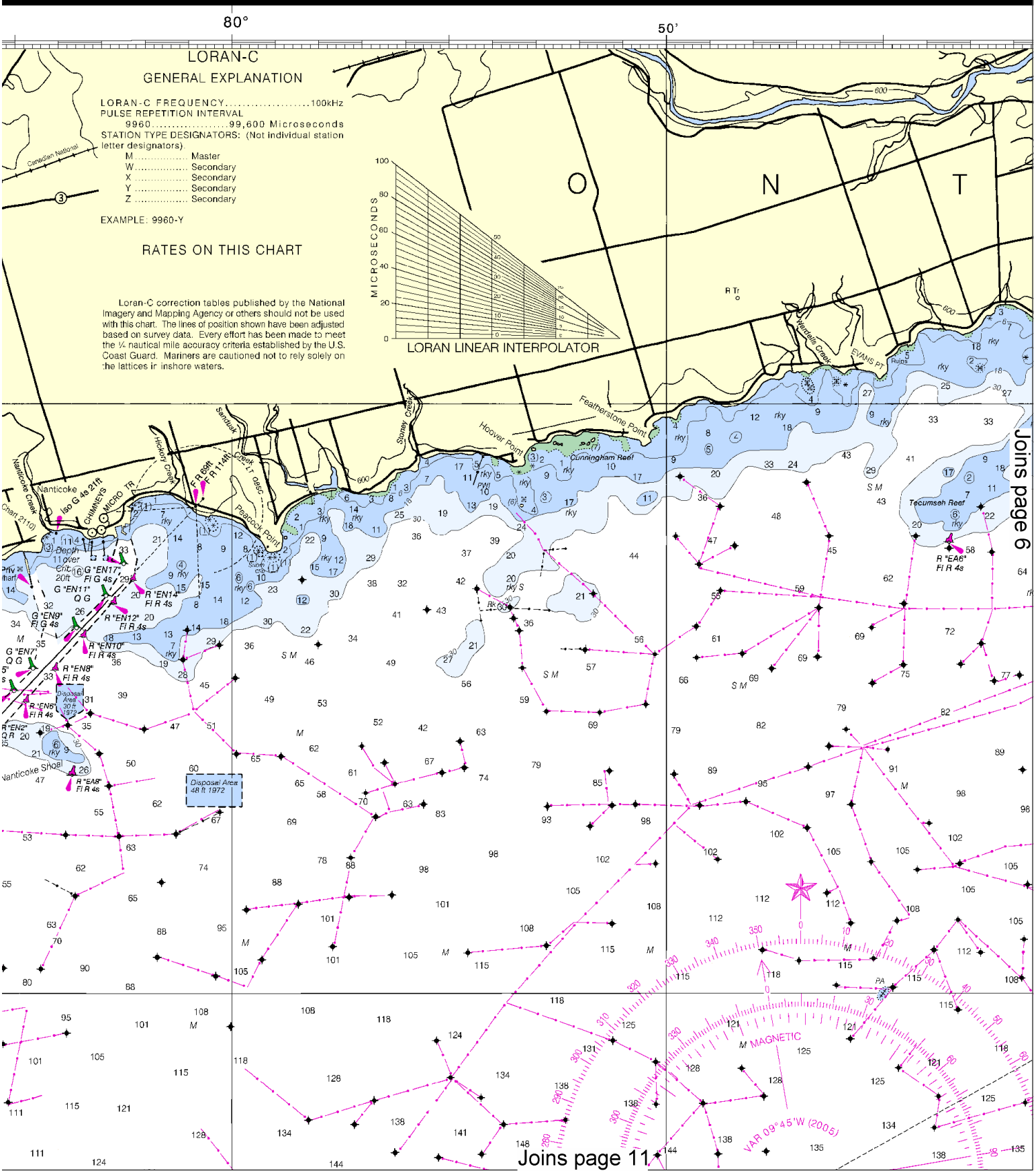
NOAA WEATHER RADIO BROADCASTS
The NOAA Weather Radio stations listed below provide continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Buffalo, NY	KEB-98	162.550 MHz
Erie, PA	KEC-58	162.400 MHz
Meadville, PA	KZZ-32	162.475 MHz

SUPPLEMENTAL INFORMATION
Consult U.S. Coast Pilot 6 and Canadian Sailing Directions, Great Lakes, Vol. 1 for important supplement information.
Information concerning Canadian Nautical Charts, Sailing Directions, Tide Tables and other Government publications of interest to mariners may be obtained on request to the Dominion Hydrographer, Canadian Hydrographic Service, Department of Fisheries and Oceans, Ottawa.
For the St. Lawrence Seaway Regulations and Circulars, special equipment, radio frequencies used in Traffic Control and related information, refer to THE SEAWAY HANDBOOK

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.


20'
10'
50'
40'
81°
80°
79°
43°
42°
ONTARIO
PENNSYLVANIA
NEW YORK
LAKE ERIE
CANADA
UNITED STATES
WELLAND CANAL
Port Maitland
Port Colborne
Buffalo
Port Burwell
Long Pt
Dunkirk
Erie
Ashtabula
LAKE ERIE
FISH NETTING AREAS
Various types of nets are employed in Lake Erie of which gill nets, impounding nets and trap nets may create a hazard to mariners. These are marked by buoys or stakes. This diagram shows the areas most intensively fished and the principal type of nets employed. However, fishing gear may be encountered at any location.
① Principal Gill Netting Areas
② Impounding Net Areas
③ Trap Net Areas
2110
2181
2042
2120
14832
14833
14822
14823
14835
14824
14825
Canadian charts are outlined in screenec blake and may be obtained from the Canadian Hydrographic Service.
LAKE ERIE
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.
Elevation in feet
+5 +4 +3 +2 +1 0 -1
Low Water Datum
Average levels (1994-2003)
Extreme Levels (period of record)
Low Water Datum, which is the plane of reference for the levels shown on the above hydrograph, is also the plane of reference for the charted depths. If the lake level is above or below Low Water Datum, the existing depths are correspondingly greater or lesser than the charted depths.
Lynn River
Black Creek
(use Canadian Chart 2110)
PORT DOVER
Iso G
Iso R
Micro Tr
Young Creek
Port Ryerse
R Trs 194ft
Tr 548ft
Fishers Creek
R Tr 361 ft
Normandale
Charles Creek
Turkey Point
Obstn
F R Priv
St Williams
Fl R 4s 33ft
Piles
Deep Hole Pt
Crib
Whitefish Bar Island
INNER BAY
Fl R 4s "EC10"
R "EC2"
G "EC1"
RW Mo (A) "C"
R "ED2" Fl R 4s
G "EN5" Fl G 4s
G "EN7" Fl G 4s
LONG POINT
BAY
Joins page 10



This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:160000. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.

80°

50'

40'

LORAN-C

NERAL EXPLANATION

REQUENCY.....100kHz
ITION INTERVAL
.....99,600 Microseconds
DESIGNATORS: (Not individual station
ors).
..... Master
..... Secondary
..... Secondary
..... Secondary
..... Secondary

60-Y

TES ON THIS CHART

rrection tables published by the National
pping Agency or others should not be used
he lines of position shown have been adjusted
y data. Every effort has been made to meet
nile accuracy criteria established by the U.S.
Mariners are cautioned not to rely solely on
nshore waters.

MICROSECONDS

LORAN LINEAR INTERPOLATOR

O N T A

Sandusat Creek

Stoney Creek

Hoover Point

Featherstone Point

Cunningham Reef

Peacock Point

Wardells Creek

EVANS PT

Ruins

Blott Pt

Low Point

Grant Po

Tecumseh Reef

R "EA6"
Fl R 4s

Disposal Area
48 ft 1972

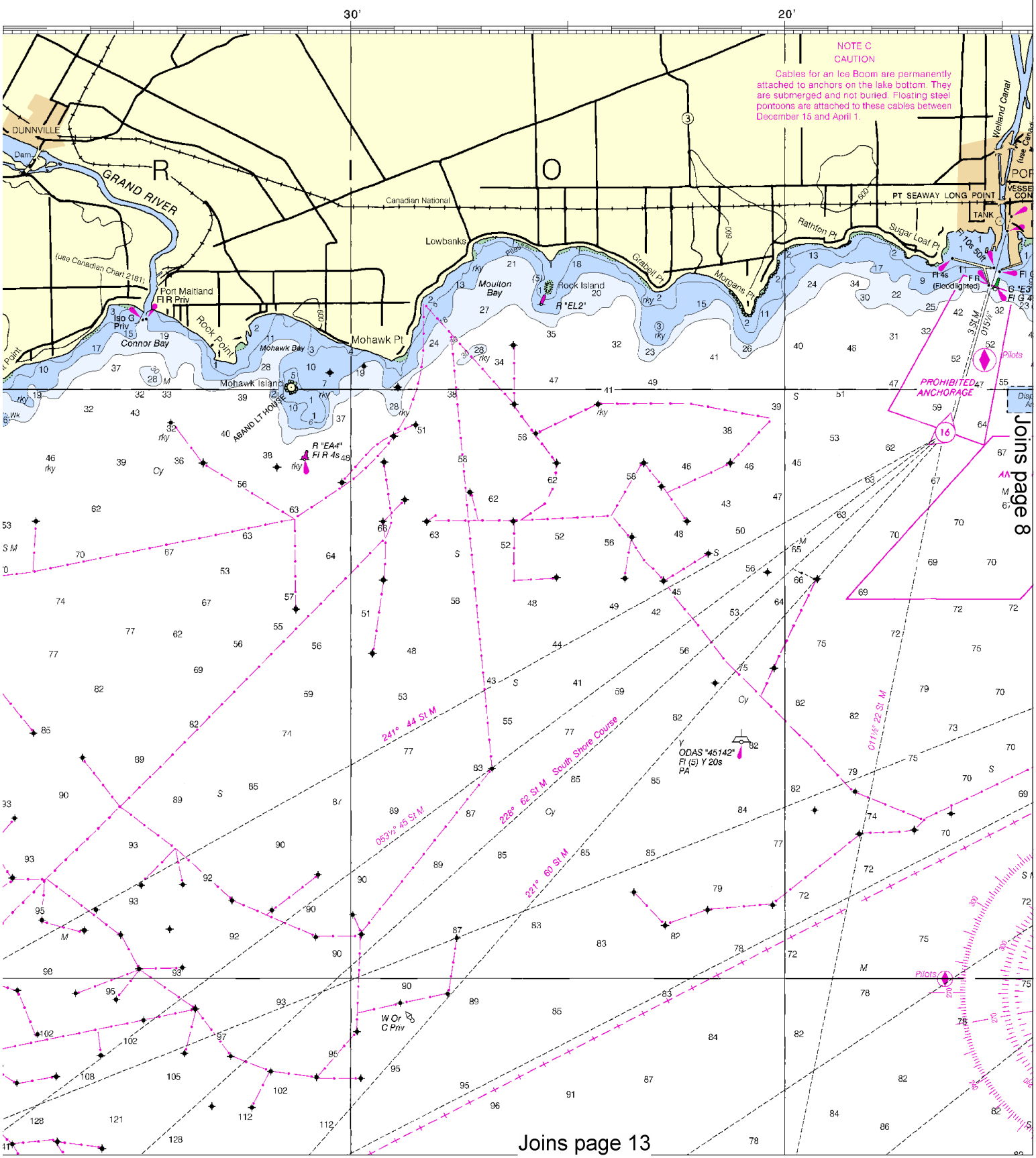
MAGNETIC

VAR 09°45'W (2005)

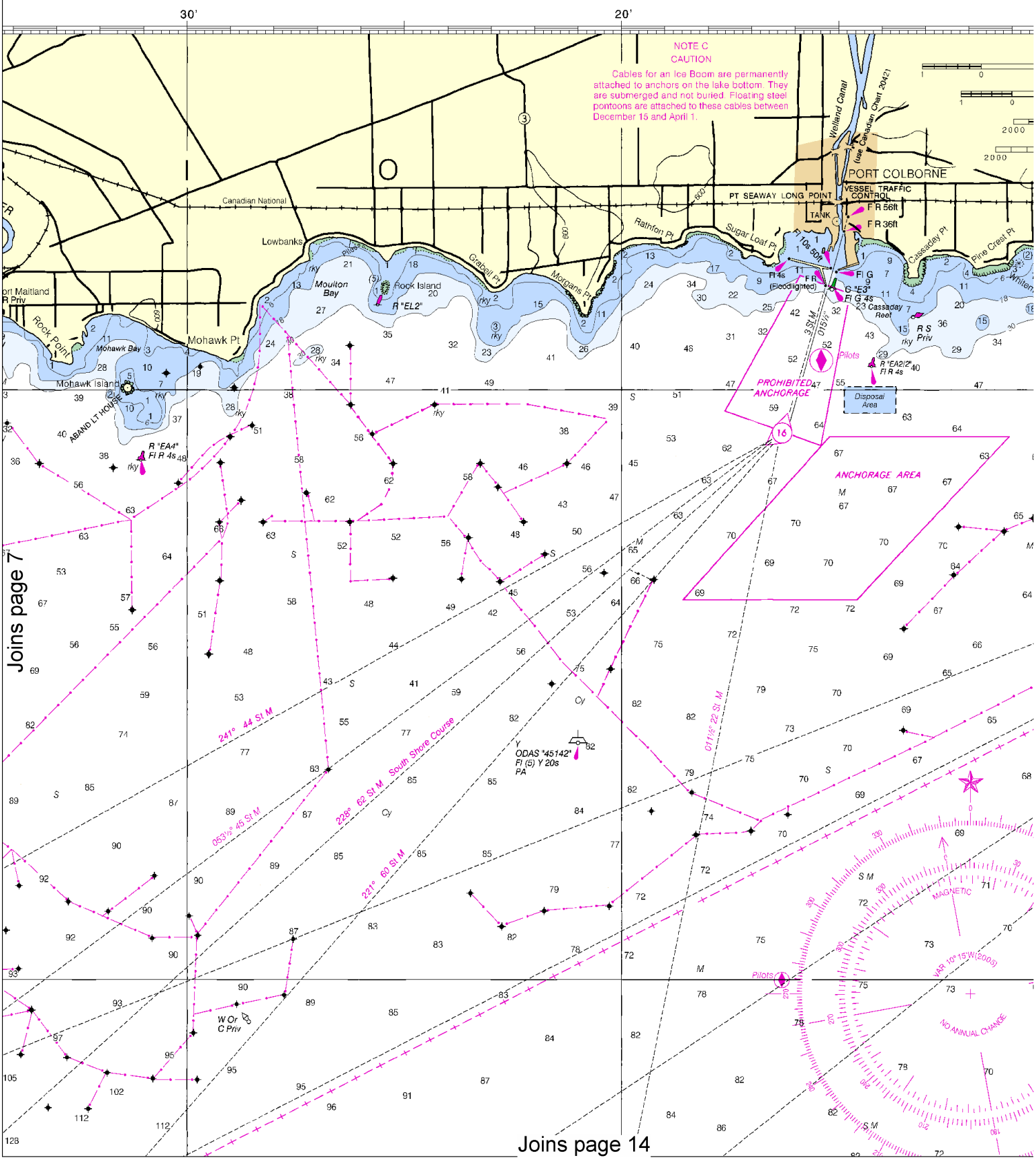
Joins page 5

Joins page 12

North

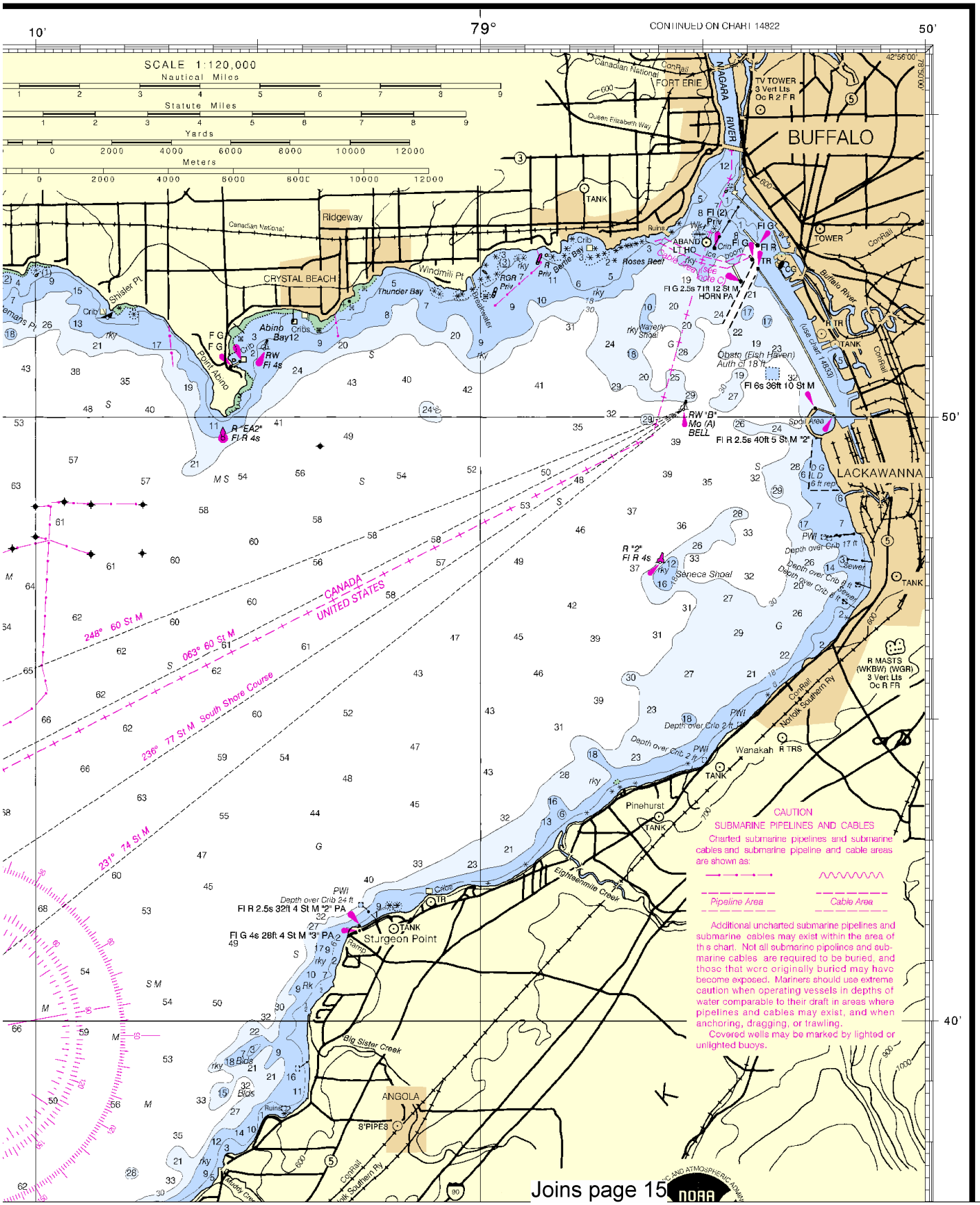


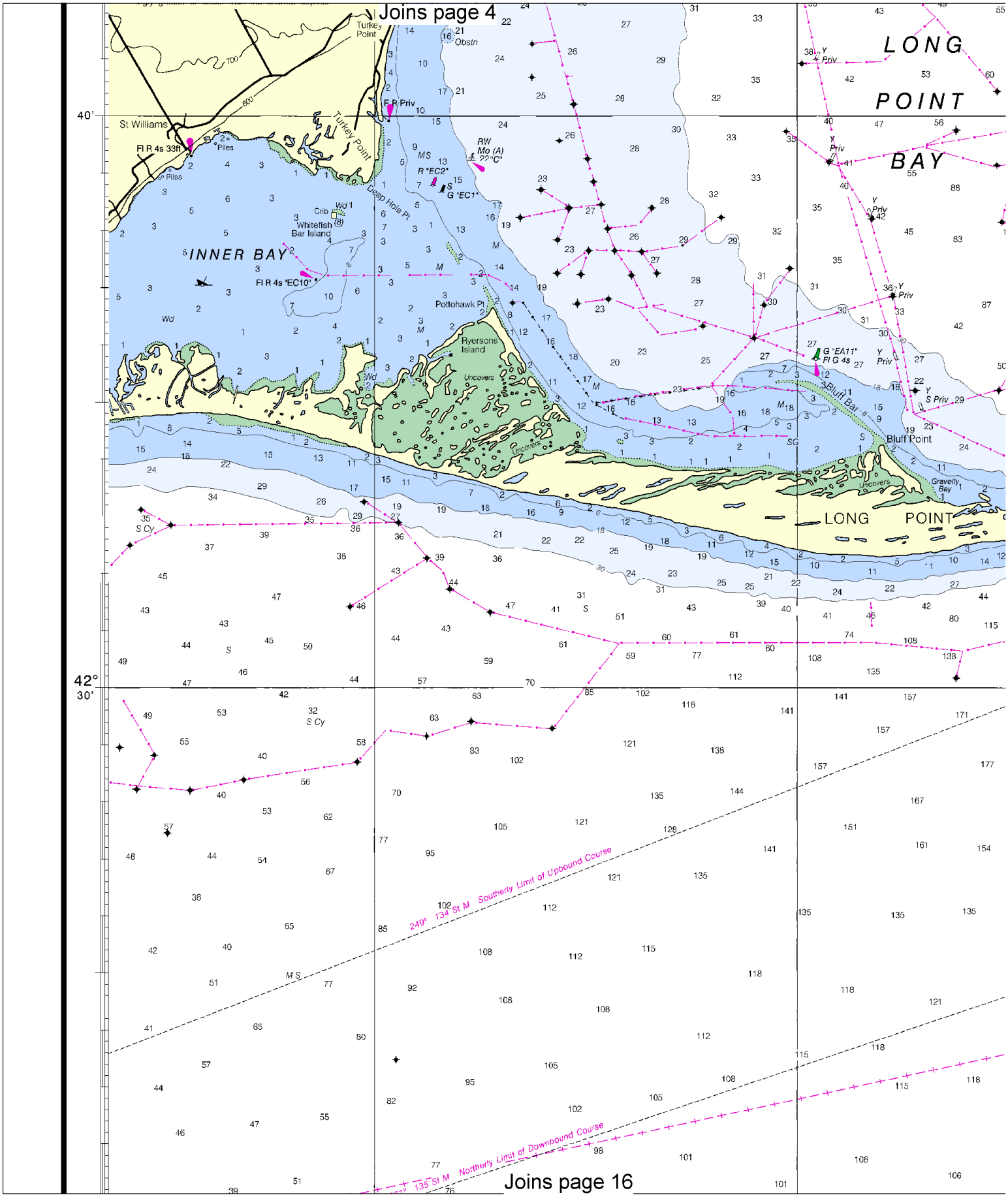
This BookletChart has been updated with: Coast Guard Local Notice To Mariners: 0710 2/16/2010,
NGA Weekly Notice to Mariners: 0910 2/27/2010,
Canadian Coast Guard Notice to Mariners: 0110 1/29/2010.

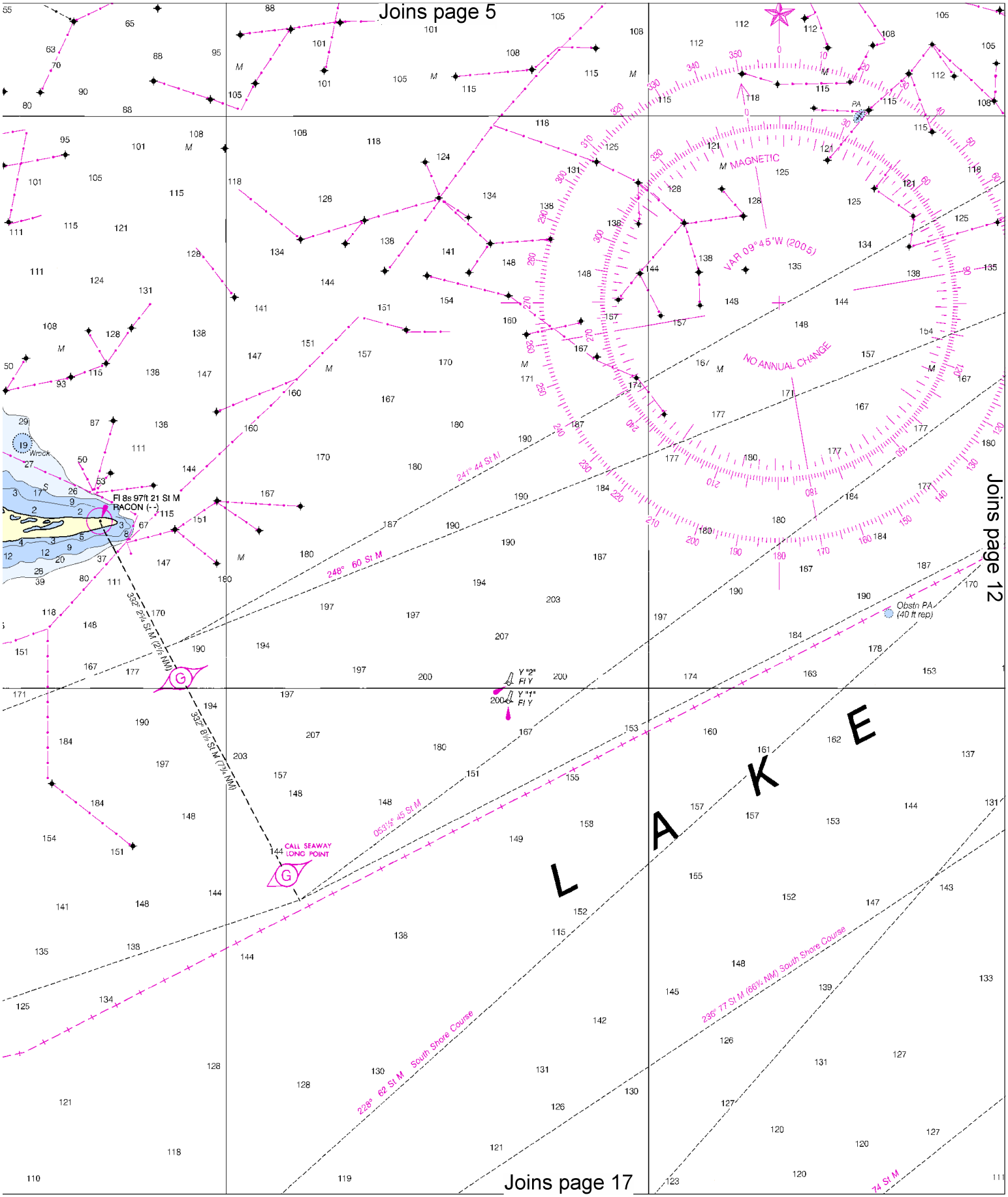

30'
20'
NOTE C
CAUTION
Cables for an Ice Boom are permanently attached to anchors on the lake bottom. They are submerged and not buried. Floating steel pontoons are attached to these cables between December 15 and April 1.
Welland Canal
(use Canadian Chart 2042)
PORT COLBORNE
VESSEL TRAFFIC CONTROL
PT SEAWAY LONG POINT
TANK
F R 56ft
F R 36ft
Canadian National
Lowbanks
Rathfon Pt
Sugar Loaf Pt
Cassaday Pt
Pine Crest Pt
Grabell Pt
Morgans Pt
Rock Island
R "EL2"
Moulton Bay
Mohawk Bay
Mohawk Pt
Rock Point
Mohawk Island
ABAND LT HOUSE
R "EA4"
Fl R 4s
Fl G
G "E3"
Fl G 4s
Cassaday Reef
Fl 4s
(Floodlighted)
F R
R S Priv
Pilots
R "EA2/2"
Fl R 4s
PROHIBITED ANCHORAGE
Disposal Area
ANCHORAGE AREA
ODAS "45142"
Fl (5) Y 20s
PA
241° 44 St M
053½° 45 St M
226° 62 St M
South Shore Course
221° 60 St M
011½° 22 St M
W Or C Priv
MAGNETIC
VAR 10° 15'W(2005)
NO ANNUAL CHANGE
Joins page 7
Joins page 14

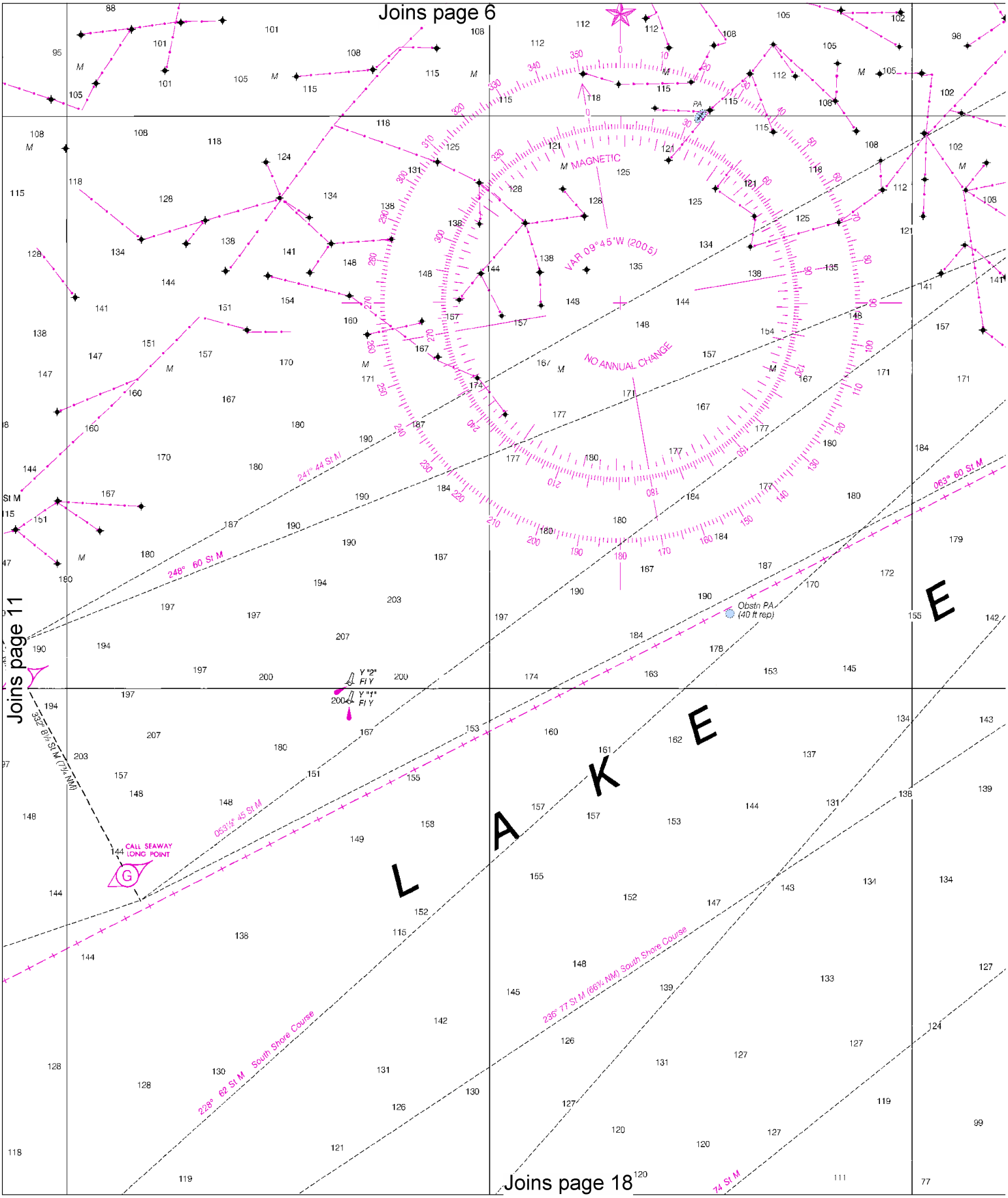
North

SOUNDINGS IN FEET

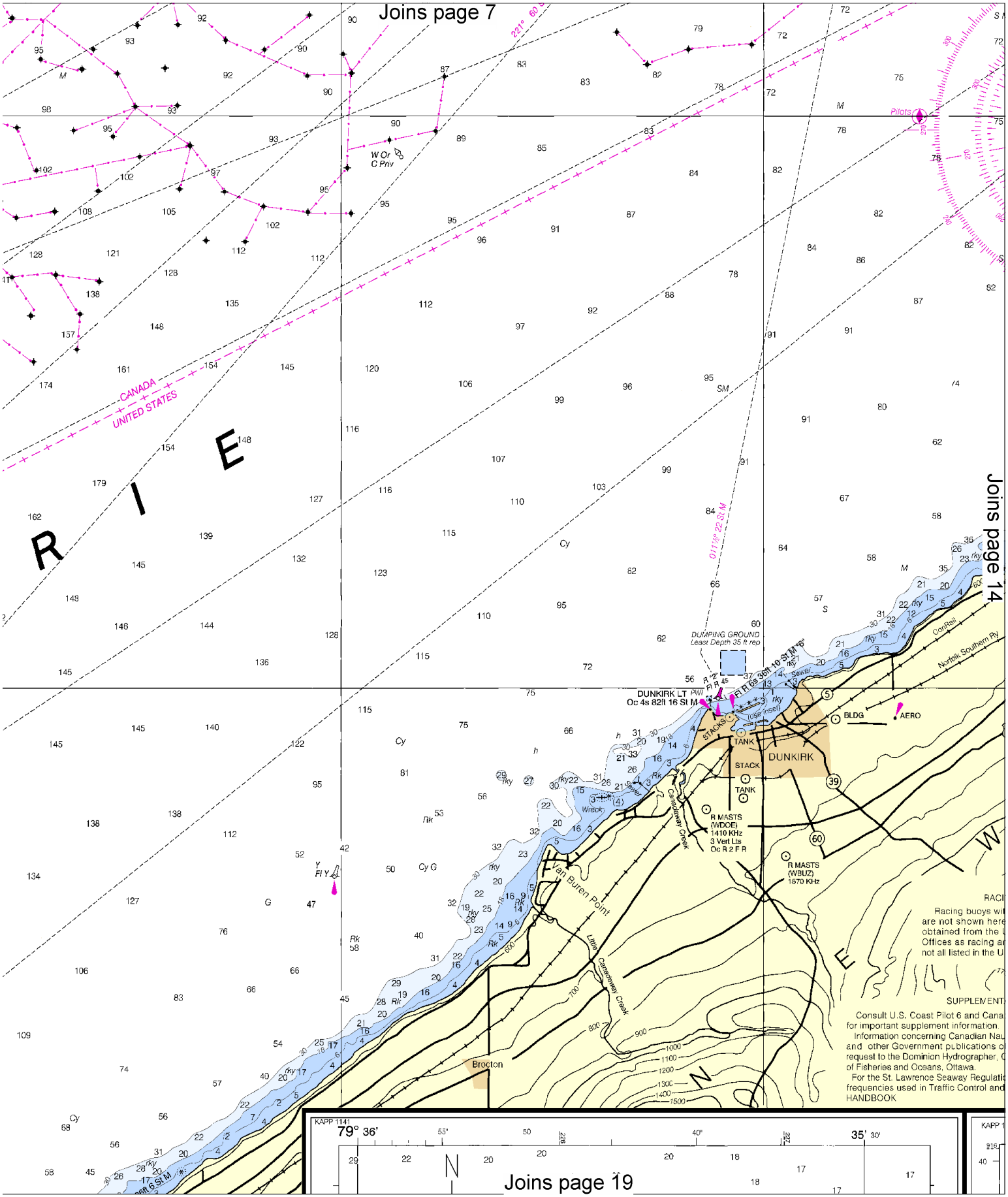


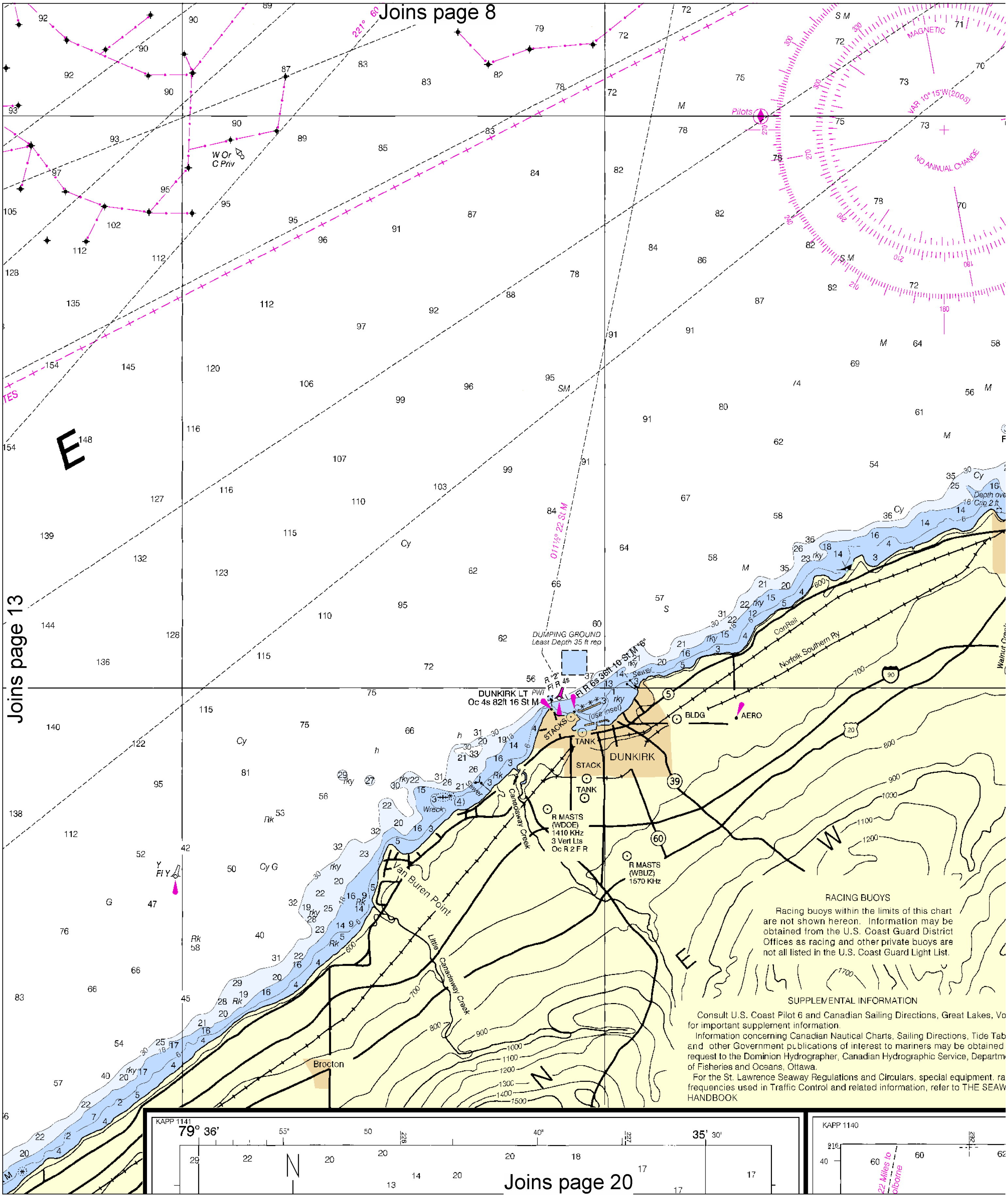

Joins page 4
Turkey Point
Obstn
LONG POINT BAY
St Williams
Fl R 4s 39ft
Piles
F R Priv
RW Mo (A) "C"
R "EC2"
G "EC1"
Deep Hole Pt
Crib
Whitefish Bar Island
INNER BAY
Fl R 4s "EC10"
Pottohawk Pt
Ryersons Island
Uncovers
G "EA11" Fl G 4s
Bluff Bar
Bluff Point
Gravelly Bay
LONG POINT
S Cy
40°
30'
42°
249° 134 St M Southerly Limit of Upbound Course
135 St M Northerly Limit of Downbound Course
Joins page 16
North


Joins page 5
Joins page 12
Joins page 17
MAGNETIC
VAR 09°45'W (2005)
NO ANNUAL CHANGE
Fl 8s 97ft 21 St M
RACON (--)
Wreck
241° 44 St M
248° 60 St M
332° 2¾ St M (2½ NM)
332° 8½ St M (7¼ NM)
053½° 45 St M
CALL SEAWAY
LONG POINT
Y "2"
Fl Y
Y "1"
Fl Y
Obstn PA
(40 ft rep)
296° 77 St M (66¾ NM) South Shore Course
228° 62 St M South Shore Course
74 St M
L A K E


Joins page 6
Joins page 11
Joins page 18
L A K E E
M MAGNETIC
VAR 09° 45'W (2005)
NO ANNUAL CHANGE
241° 44 St M
248° 60 St M
063° 60 St M
053½° 45 St M
332° 8½ St M (7¾ NM)
228° 62 St M South Shore Course
236° 77 St M (66¾ NM) South Shore Course
74 St M
Obstn PA (40 ft rep)
Y "2" Fl Y
Y "1" Fl Y
CALL SEAWAY LONG POINT
G
PA

North

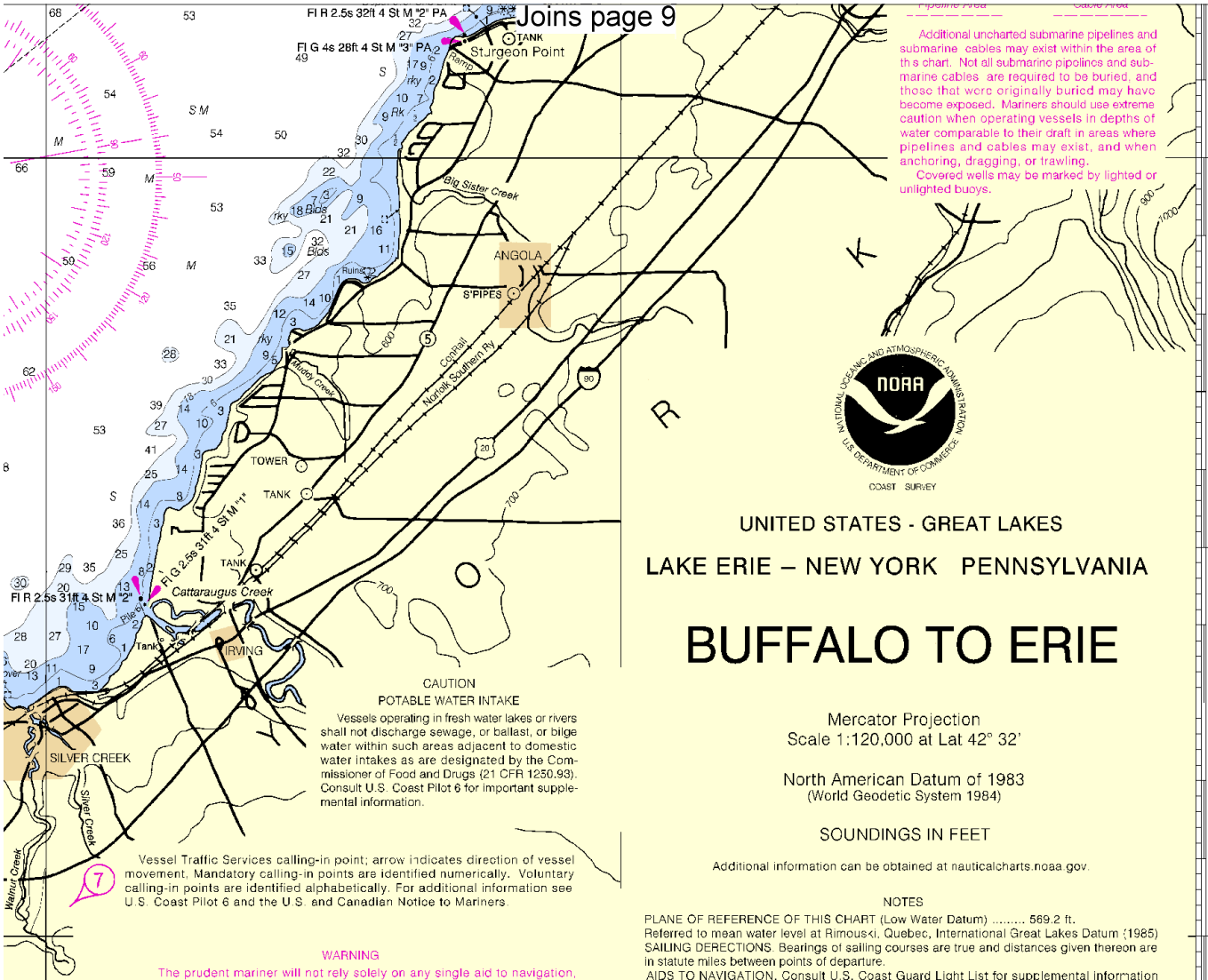

Joins page 7
CANADA
UNITED STATES
R I E
DUMPING GROUND
Least Depth 35 ft reo
DUNKIRK LT
Oc 4s 82ft 16 St M
DUNKIRK
STACK
TANK
BLDG
AERO
Conrail
Norfolk Southern Ry
R MASTS
(WDOE)
1410 KHz
3 Vert Lts
Oc R 2 F R
R MASTS
(WBUZ)
1570 KHz
Van Buren Point
Little Canandaigua Creek
Canandaigua Creek
Wreck
Brocton
79° 36'
35'
Joins page 19
Joins page 14



Joins page 8
Joins page 13
Joins page 20
MAGNETIC
VAR 10°15'W (2005)
NO ANNUAL CHANGE
Pilots
W Or
C Priv
DUMPING GROUND
Least Depth 35 ft rep
DUNKIRK LT
Oc 4s 82ft 16 St M
R "2"
Fl R 4s
Fl R 6s 36ft 10 St M "6"
(see inset)
STACKS
TANK
STACK
DUNKIRK
BLDG
AERO
R MASTS
(WDOE)
1410 KHz
3 Vert Lts
Oc R 2 F R
R MASTS
(WBUZ)
1570 KHz
Canadaway Creek
Little Canadaway Creek
Van Buren Point
Brocton
ConRail
Norfolk Southern Ry
Wreck
Sewer
Y
Fl Y
E
W
E
N
RACING BUOYS
Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other private buoys are not all listed in the U.S. Coast Guard Light List.
SUPPLEMENTAL INFORMATION
Consult U.S. Coast Pilot 6 and Canadian Sailing Directions, Great Lakes, Vo
for important supplement information.
Information concerning Canadian Nautical Charts, Sailing Directions, Tide Tab
and other Government publications of interest to mariners may be obtained
request to the Dominion Hydrographer, Canadian Hydrographic Service, Departm
of Fisheries and Oceans, Ottawa.
For the St. Lawrence Seaway Regulations and Circulars, special equipment, ra
frequencies used in Traffic Control and related information, refer to THE SEAW
HANDBOOK
KAPP 1141
79° 36'
35'
KAPP 1140
22 Miles to Olcott

North

Joins page 9



Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

Covered wells may be marked by lighted or unlighted buoys.

40'

42° 30'

NOAA
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE
COAST SURVEY

UNITED STATES - GREAT LAKES

LAKE ERIE – NEW YORK PENNSYLVANIA

BUFFALO TO ERIE

Mercator Projection
Scale 1:120,000 at Lat 42° 32'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET

Additional information can be obtained at nauticalcharts.noaa.gov.

NOTES

PLANE OF REFERENCE OF THIS CHART (Low Water Datum) ..... 569.2 ft.
Referred to mean water level at Rimouski, Quebec, International Great Lakes Datum (1985)
SAILING DIRECTIONS. Bearings of sailing courses are true and distances given thereon are in statute miles between points of departure.
AIDS TO NAVIGATION. Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation. See Canadian List of Lights, Buoys and Fog Signals for information not included in the U.S. Coast Guard Light List.
SYMBOLS AND ABBREVIATIONS. For complete list of symbols and abbreviations see Chart No. 1.
BRIDGE AND OVERHEAD CABLE CLEARANCES. When the water surface is above Low Water Datum, bridge and overhead clearances are reduced correspondingly. For clearances see U.S. Coast Pilot 6.
AUTHORITIES. Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, U.S. Coast Guard, and Canadian authorities.

CAUTION
POTABLE WATER INTAKE

Vessels operating in fresh water lakes or rivers shall not discharge sewage, or ballast, or bilge water within such areas adjacent to domestic water intakes as are designated by the Commissioner of Food and Drugs (21 CFR 1250.93). Consult U.S. Coast Pilot 6 for important supplemental information.

Vessel Traffic Services calling-in point; arrow indicates direction of vessel movement. Mandatory calling-in points are identified numerically. Voluntary calling-in points are identified alphabetically. For additional information see U.S. Coast Pilot 6 and the U.S. and Canadian Notice to Mariners.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

Gas pipelines and wells contain natural gas under pressure and damage to these installations would create an immediate fire hazard. Vessels anchoring in Lake Erie should do so with caution after noting the underwater, and therefore concealed, positions of all oil and gas wells, pipelines, submerged cables and other installations.

Sailing courses and limits indicated in magenta are recommended by the Lake Carriers Association and the Canadian Shipowners Association.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio or at the Office of the District Engineer, Corps of Engineers in Buffalo, New York.
Refer to charted regulation section numbers.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

CAUTION

Due to periodic high water conditions in the Great Lakes, some features charted as visible at Low Water Datum may be submerged, particularly in the near shore areas. Mariners should proceed with caution.

Mariners are advised that oil and gas drilling towers are temporarily established in various parts of Lake Erie. These towers exhibit a Quick Flashing White Light and each is equipped with an automatic fog signal sounding one blast of 2 seconds duration followed by 18 seconds of silence.

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio stations listed below provide continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Buffalo, NY	KEB-98	162.550 MHz
Erie, PA	KEC-58	162.400 MHz
Meadville, PA	KZZ-32	162.475 MHz

RADAR REFLECTORS

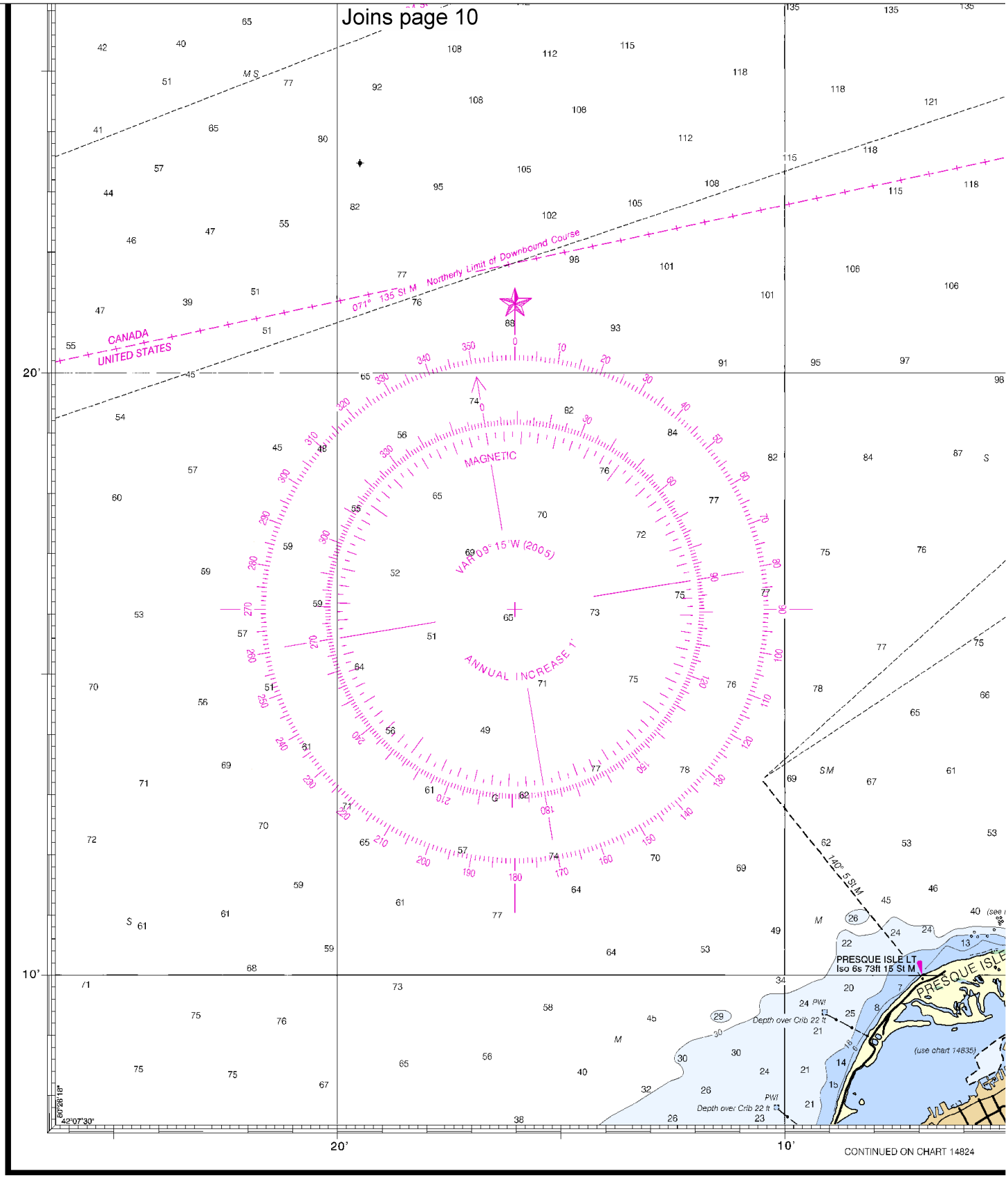
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

This chart was developed within the framework of international specifications in cooperation with the Canadian Hydrographic Service. Production was assisted by computer and machine engraving techniques.

21' 50" 40 30' 20" 10' 79° 20' 50" 19'

PLANE COORDINATE GRID
(based on NAD 1927)
New York State Grid west zone, is indicated

DUNKIRK HARBOR
Joins page 21



4th Ed., Apr. / 05 ■ Corrected through NM : Apr. 02/05
Corrected through LNM Mar. 22/05

14838

LORAN-C OVERPRINTED

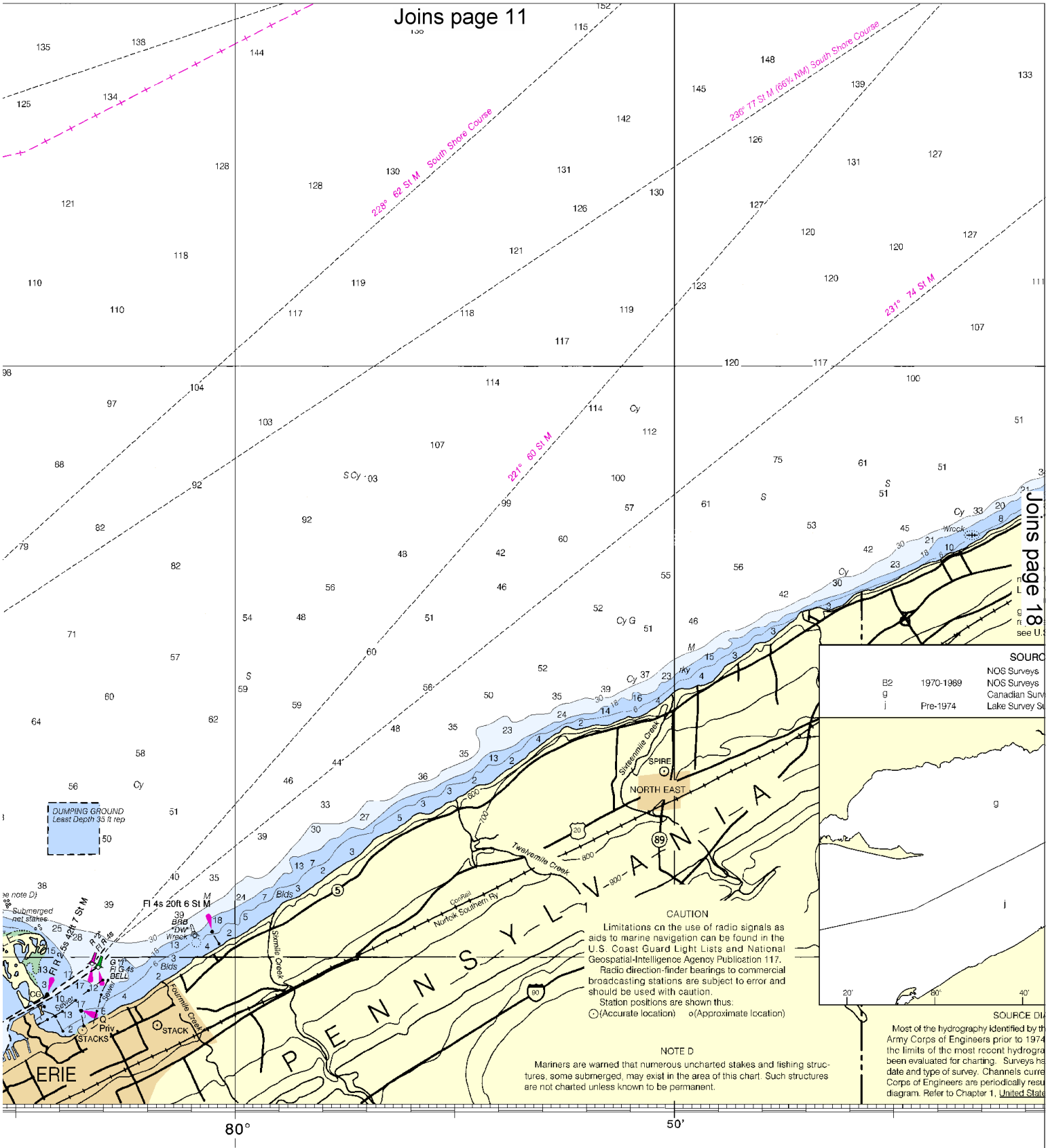
CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower lef

This nautical chart has been designed to promote safe na
Ocean Service encourages users to submit corrections, addit
improving this chart to the Chief, Marine Chart Division (N/
Service, NOAA, Silver Spring, Maryland 20910-3282.

North

Joins page 11



Joins page 18

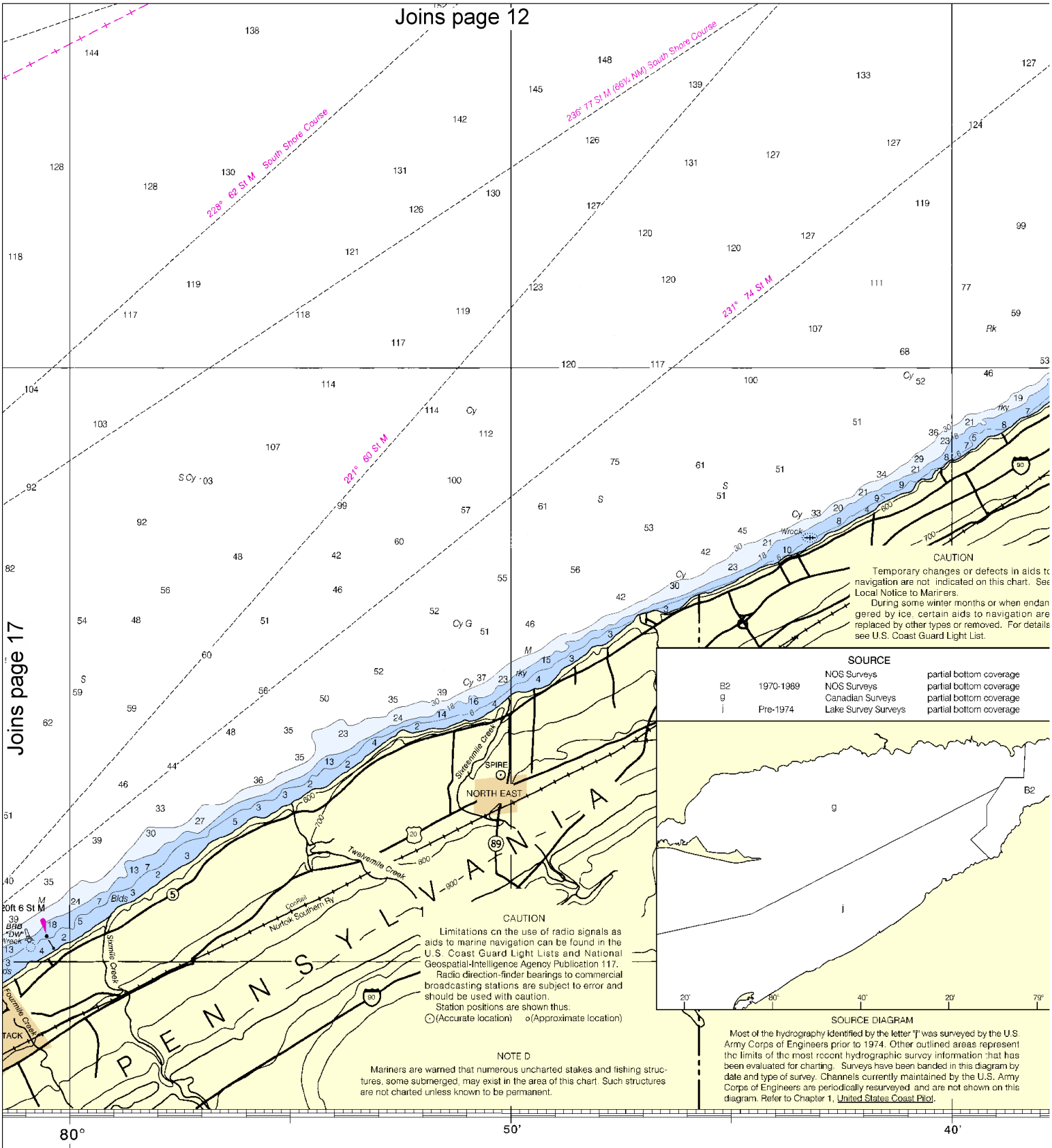
navigation. The National
ditions, or comments for
N/CS2), National Ocean

PRINT-ON-DEMAND CHARTS

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts http://NauticalCharts.gov, help@NauticalCharts.gov, or :tp://OceanGrafix.com, or help@OceanGrafix.com.

Joins page 12

Joins page 17



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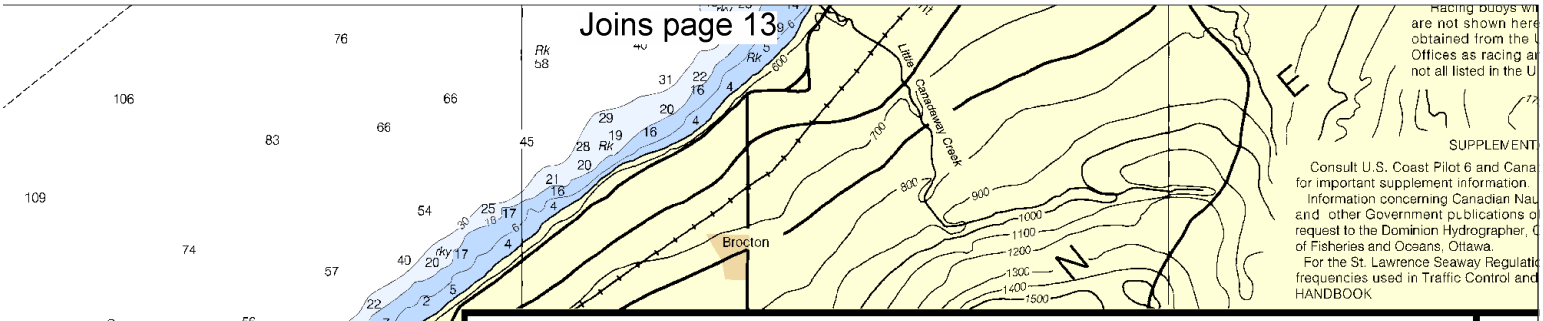
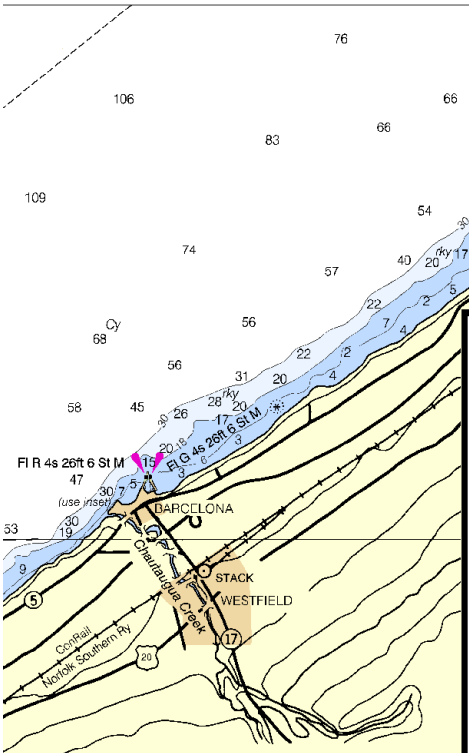
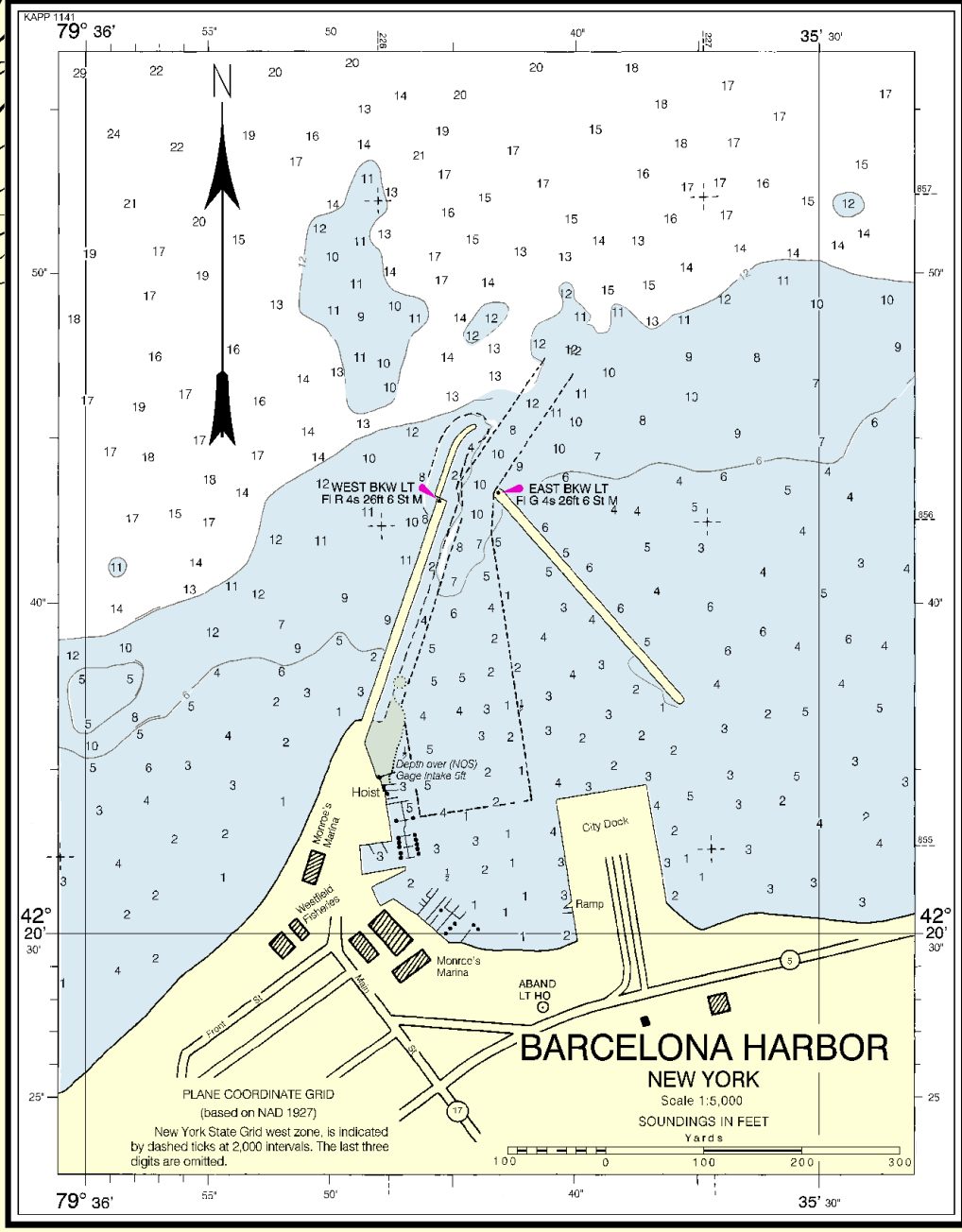
North

Joins page 13







SYMBOL REFERENCE

Floating Aids

	Lighted		Unlighted
Pillar		Red	Nun
Pillar		Green	Can
Pillar		Horizontally Banded	Can
Pillar		Vertically Striped	Spherical
Pillar		Vertically Striped Bell	Pillar

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

✦ Submerged well head

Ⓟ Pump-out facilities

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.214" northward and 0.844" eastward to agree with this chart.

Joins page 20

30' 20'

shington, D.C.
' OF COMMERCE
OSPHERIC ADMINISTRATION
EAN SERVICE
URVEY

SOUNDINGS IN FEET

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Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other private buoys are not all listed in the U.S. Coast Guard Light List.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 6 and Canadian Sailing Directions, Great Lakes, Vo for important supplement information.

Information concerning Canadian Nautical Charts, Sailing Directions, Tide Tab and other Government publications of interest to mariners may be obtained request to the Dominion Hydrographer, Canadian Hydrographic Service, Departm of Fisheries and Oceans, Ottawa.

For the St. Lawrence Seaway Regulations and Circulars, special equipment, ra frequencies used in Traffic Control and related information, refer to THE SEAW HANDBOOK.

KAPP 1141

79° 36'

35' 30'

42° 30'

42° 20'

WEST BKW LT
Fl R 4s 26ft 6 St M

EAST BKW LT
Fl G 4s 26ft 6 St M

Depth over (NOS) Gage Intake 5ft

Hoist

Monroe's Marina

Westfield Fisheries

City Dock

Ramp

Monroe's Marina

ABAND LT HO

Front St

Main St

BARCELONA HARBOR

NEW YORK

Scale 1:5,000

SOUNDINGS IN FEET

Yards

100 0 100 200 300

PLANE COORDINATE GRID
(based on NAD 1927)
New York State Grid west zone, is indicated by dashed ticks at 2,000 intervals. The last three digits are omitted.

KAPP 1140

011½° 22 Miles to Port Colborne

325° 1 Mile

DUNKIRK LT
Oc 4s 82ft 16 St M

Point Gratiot

Depth over Crib 22 feet

PWL

Flagpoles

NYDEC Fisheries Station

Point Gratiot Park

Cedar St

Oak St

Chestnut St

REFERENCE

ating Aids

Unlighted

Red Nun

Green Can

anded Can

ped Spherical

ed Bell Pillar

shown by broken lines are
rticularly at the edges.

erged well head

-out facilities

ONTAL DATUM

ference datum of this chart
tum of 1983 (NAD 83), which
s is considered equivalent
tic System 1984 (WGS 84).
ons referred to the North
1927 must be corrected an
rthward and 0.844" eastward
art.

PYRIGHT

by the United States Government
wever, other nations may claim
the compilation of data depicting
this chart.

Joins page 19

30' 20'

SOUNDINGS IN FEET

FATHOMS
FEET
METERS

North

lished in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio or at the Office of the District Engineer, Corps of Engineers in Buffalo, New York.

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Joins page 15

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DUNKIRK HARBOR

NEW YORK

Scale 1:15,000

SOUNDINGS IN FEET

PLANE COORDINATE GRID
(based on NAD 1927)

New York State Grid west zone, is indicated by dashed ticks at 2,000 intervals. The last three digits are omitted.

DUMPING GROUND
Least Depth 35 feet rep

Depth over Outlet 10 ft

Battery Point

Waste Water Treatment Plant

Wright Park

Cedar Beach

Niagara Mohawk Power Corp

Bart's Cove

Northern Chautauqua Conservation Club, Inc

Chadwick Bay Marina

Municipal Pier

Dunkirk Radiator Corp

Cliffstar Corp
Market Terminal Warehouse Inc

Progress Park Inc

Fl R 4s

Fl G 4s 20ft 5 St M "5"

8 PIERHEAD LT

Fl R 6s 36ft 10 St M "6"

Fl G 2.5s 35ft 4 St M "1"

Fl R 4s 33R 4 St M "4"

3 FT JUL 2008

Fl R 2s 4 St M "2"

Buffalo to Erie
SOUNDINGS IN FEET - SCALE 1:120,000

14838
LORAN-C OVERPRINTED

(748.2mm x 1098.9mm)

ED. NO. 4
NSN 7642014597214 NGA REFERENCE NO. 14XCO14838

EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.
Channel 9 – Communications between boats and ship-to-coast.
Channel 13 – Navigation purposes at bridges, locks, and harbors.
Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.
Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.
Channels 68, 69, 71, 72 & 78A – Recreational boat channels.

Distress Call Procedures

1. Make sure radio is on.
2. Select Channel 16.
3. Press/Hold the transmit button.
4. Clearly say: "MAYDAY, MAYDAY, MAYDAY."
5. Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
6. Release transmit button.
7. Wait for 10 seconds – If no response Repeat MAYDAY Call.

HAVE ALL PERSONS PUT ON LIFE JACKETS !!

Mobile Phones – Call 911 for water rescue.
Coast Guard Search & Rescue (RCC) – 216-902-6117
Coast Guard Search & Rescue (Buffalo) – 716-843-9527
Canadian Coast Guard (RCC Trenton) – 1-800-267-7270 or 613-965-3870

NOAA Weather Radio – 162.400 MHz, 162.425 MHz, 162.450 MHz, 162.475 MHz, 162.500 MHz, 162.525 MHz, 162.550 MHz.

Getting and Giving Help – Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

NOAA, The Nation's Chartmaker

NOAA CHARTING PUBLICATIONS

Official NOAA Nautical Charts – NOAA surveys and charts the national and territorial waters of the U.S, including the Great Lakes. We produce over 1,000 traditional nautical charts covering 3.4 million square nautical miles. Carriage of official NOAA charts is mandatory on the commercial ships that carry our commerce. They are used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters. NOAA charts are available from official chart agents listed at: www.NauticalCharts.NOAA.gov.

Official Print-on-Demand Nautical Charts – These full-scale NOAA charts are updated weekly by NOAA for all Notice to Mariner corrections. They have additional information added in the margin to supplement the chart. Print-on-Demand charts meet all federal chart carriage regulations for charts and updating. Produced under a public/private partnership between NOAA and OceanGrafix, LLC, suppliers of these premium charts are listed at www.OceanGrafix.com.

Official Electronic Navigational Charts (NOAA ENCs®) – ENCs are digital files of each chart's features and their attributes for use in computer-based navigation systems. ENCs comply with standards of the International Hydrographic Organization. ENCs and their updates are available for free from NOAA at www.NauticalCharts.NOAA.gov.

Official Raster Navigational Charts (NOAA RNCs™) – RNCs are geo-referenced digital pictures of NOAA's charts that are suitable for use in computer-based navigation systems. RNCs comply with standards of the International Hydrographic Organization. RNCs and their updates are available for free from NOAA at www.NauticalCharts.NOAA.gov.

Official BookletCharts™ – BookletCharts™ are reduced scale NOAA charts organized in page-sized pieces. The "Home Edition" can be downloaded from NOAA for free and printed. The Internet address is www.NauticalCharts.gov/bookletcharts.

Official PocketCharts™ – PocketCharts™ are for beginning recreational boaters to use for planning and locating, but not for real navigation. Measuring a convenient 13" by 19", they have a 1/3 scale chart on one side, and safety, boating, and educational information on the reverse. They can be purchased at retail outlets and on the Internet.

Official U.S. Coast Pilot® – The Coast Pilots are 9 text volumes containing information important to navigators such as channel descriptions, port facilities, anchorages, bridge and cable clearances, currents, prominent features, weather, dangers, and Federal Regulations. They supplement the charts and are available from NOAA chart agents or may be downloaded for free at www.NauticalCharts.NOAA.gov.

Official On-Line Chart Viewer – All NOAA nautical charts are viewable here on-line using any Internet browser. Each chart is up-to-date with the most recent Notices to Mariners. Use these on-line charts as a ready reference or planning tool. The Internet address is www.NauticalCharts.gov/viewer.

Official Nautical Chart Catalogs – Large format, regional catalogs are available for free from official chart agents. Page size, state catalogs are posted on the Internet and can be printed at home for free. Go to http://NauticalCharts.NOAA.gov/mcd/ccatalogs.htm.

Internet Sites: www.NauticalCharts.NOAA.gov, www.NOAA.gov, www.TidesandCurrents.NOAA.gov, www.NOS.NOAA.gov.